

Nutrition in Early Childhood: A Foundation for Lifelong Health

When children are healthy during the first years of life, they are more likely to maintain a healthy weight throughout their childhood, be successful in school, and achieve lifelong health.

Unfortunately, Texas children as young as two are already on track to grow up at an unhealthy weight. With the majority of young Texas children spending significant portions of the day in child care settings, Texas parents need child care providers to be a strong partner in providing healthy food and drinks and plenty of active play time. Fortunately, there are steps state leaders can take to help parents identify healthier child care providers and ensure child care providers partner with parents in supporting healthy kids.

Background

Helping our youngest children start off at a healthy weight and develop healthy eating and physical activity habits prevents expensive chronic conditions, such as heart disease and diabetes, later in life. *Children who are overweight or obese as preschoolers are five times more likely to be overweight or obese as adults.*¹ Overweight and obese children are at a higher risk of bone and joint problems, social and psychological conditions, and chronic conditions like heart disease, stroke, asthma, and certain forms of cancer.² Ensuring young kids have better opportunities to eat nutritious foods and maintain a healthy weight is essential for state savings in our health system, healthier students, a more productive workforce, and a more prosperous Texas.

Establishing a healthy foundation in early childhood also gives children a greater opportunity to succeed in school and the workplace. Being physically active and having a healthy diet before the age of five is associated with improved child development and cognitive outcomes.³ For example, research show that young kids that eat a healthy diet – high in lean protein and fresh fruits and vegetables – are more likely to have a higher IQ at age eight.⁴ In contrast, dietary patterns high in processed foods and added sugars are associated with lower school achievement and nonverbal reasoning.⁵

Unfortunately, many young Texans are already at an unhealthy weight at an early age. More than one in twelve children (eight percent) ages two to five years old are obese.⁶ While this challenge is present in all Texas communities – rural, suburban, and urban – some Texas children are at a higher risk. *Nearly one-third of two- to five-year-olds (31 percent) from low-income Texas families participating in the*

Women, Infant, and Children (WIC) program are either overweight or obese,⁷ a rate that exceeds the national average for this age group.⁸ Obesity early in childhood affects low-income children of all backgrounds – including nine percent of White two- to five-year-olds from Texas households participating in WIC, 11 percent of their Black counterparts, and 14 percent of their Hispanic peers – but disproportionately affects children of color.⁹

Families' difficulty obtaining healthy, nutritious foods on a daily basis exacerbates the challenge of childhood obesity. Many Texas families struggle to afford healthy, unprocessed foods, which tend to cost more on a per-calorie basis. Children of all backgrounds, including 17 percent of White children, live in families that struggle to consistently put food on the table. However, children of color in Texas, including 38 percent of Black children and 31 percent of Hispanic children, are at a higher risk of going to bed hungry on any given day.¹⁰

Child care providers are a key partner for parents in helping young kids eat healthy, stay active, and maintain a healthy weight. About 75 percent of kids under age six spend much of their day in child care outside the home,¹¹ where parents aren't in charge of decisions about snacking on carrots or cookies, drinking water or sugary drinks, and playing outside or watching a movie. In Texas, that adds up to one million young kids in licensed or regulated child care programs (child care centers or homes) and another 130,000 school age kids in before- and after-school programs.¹² Parents know their children deserve the benefits of healthy foods and active play time, and they want to know their child care providers are encouraging and reinforcing positive habits.

Policy Recommendations

To ensure children served in child care centers and homes receive healthy foods and drinks as they learn and develop in early care environments, Texas policymakers must take the following steps.

- 1) **Include nutrition designations in the state's online child care directory to empower concerned parents to make informed decisions.** The Department of Family and Protective Services (DFPS) currently maintains an online directory that allows parents to search for child care by zip code and other criteria, such as ages served, availability of night or weekend care, or whether child care subsidies are accepted. To help parents also identify which providers serve kids healthy meals and snacks, DFPS should designate which providers are in the Child and Adult Care Food Program (CACFP).

Texas has participated in CACFP for decades. This voluntary program sets standards for meals and snacks to ensure kids receive enough nutrients and variety of foods while they are in child care – including a variety of fruits, vegetables, whole grains, and milk and less added sugars and saturated fats.¹³ The federally-funded program reimburses child care centers and homes for providing nutritious foods and drinks that contribute to healthy growth and development of young children.

Of the nearly one million young kids in child care centers and homes,¹⁴ about 400,000 kids are served by programs that participate in CACFP.¹⁵

Studies show that children in CACFP-participating programs receive foods of higher nutritional quality compared to those served in comparable child care settings without CACFP.¹⁶ In particular, children at CACFP sites are more likely to receive more fruits, vegetables, and milk, while eating fewer saturated fats and other sweets.¹⁷ They also obtained more protein, vitamin A, B vitamins, calcium, magnesium, iron, and zinc.¹⁸ Participation in federal child care and school meal programs, such as the CACFP, is associated with a lower body mass index in children, particularly for low-income children.¹⁹

Of the nearly one million young Texas kids in child care centers and homes,²⁰ about 400,000 kids are served by programs that participate in CACFP to serve healthy foods and drinks.²¹ Adding this element to the DFPS online directory will increase transparency and empower parents as they make decisions for their families.

- 2) ***Further encourage child care providers to improve nutrition and access to healthy foods by increasing the points allotted for CACFP participation in the state's child care quality rating system.*** The Texas Workforce Commission (TWC) manages Texas Rising Star (TRS), a voluntary system to recognize providers that go above and beyond minimum child care licensing standards and reward them with higher child care reimbursement rates. TWC should increase the points that providers earn for participating in CACFP.

TRS awards two, three, and four star ratings for offering quality care in areas such as caregiver/child interactions, nutrition and physical activity, and parent involvement. Currently, programs can receive a higher score if they (a) have 12 months of menus approved by a dietician; (b) have menu policies designed to provide children with a variety of foods to meet USDA dietary guidelines; or (c) participate in CACFP.

Given CACFP's proven track record in increasing the nutrient quality of foods served and improving health and weight (as summarized in the previous recommendation), the state should use TRS to actively incentivize participation in CACFP.

- 3) ***Include children under age one in the state's current nutrition and feeding minimum standards for child care providers.*** Currently, the state's minimum standards provide guidance on serving sizes and the variety of food groups to serve kids at different ages to meet their daily food needs, but the standards only cover children age one and older. DFPS should include children under age one in the minimum standards, drawing on CACFP's guidance on infant nutrition and feeding.

CACFP's infant meal pattern includes clear, scientifically-supported guidelines for the types of solid foods to serve at different ages and the amount of breastmilk/formula to serve infants from birth to age one. These clear guidelines will help ensure infants in child care programs are getting enough nutrients and age-appropriate foods for a healthy start in life.

Nutrition and feeding guidelines for infants is one area where Texas' current minimum standards drastically falls short. The CDC and the American Academy of Pediatrics (AAP) have recommended 47 evidence-based components to include in child care licensing standards to prevent obesity – such as guidelines to improve infant feeding, nutrition, physical activity, and screen time. Texas incorporates only 13 of the 47 recommended obesity prevention strategies in our current minimum standards.²² The exclusion of nutrition guidelines for children under age one from our standards is one of the major examples of why Texas ranks far below average when it comes to incorporating high-impact, obesity prevention strategies into child care licensing.²³

- 4) **Ensure child care providers that do not serve their own food are also effective child nutrition partners with parents.** Given the importance of nutrition during these years of childhood, and the absence of other channels for effectively communicating with parents of young children about nutrition, the state should leverage child care providers' relationships with parents to promote healthy eating even in cases where providers have families bring their own meals and snacks from home. DFPS should update child care minimum standards to require these providers to give information to parents regarding nutritional value of food, including sample menus, and foods that may cause allergic reactions or are potential choking hazards.
- 5) **Include child nutrition, physical activity, and screen time in the training the state requires for child care staff.** Staff in child care centers and homes must complete a certain number of training hours in specific topics, such as teacher-child interaction and discipline. Child health is merely an optional training topic. To ensure child care programs deliver what is best for children to maintain a healthy weight and achieve lifelong health, child care staff must have pre-service and annual training opportunities to further their skills and knowledge in healthy menu planning, age-appropriate foods and snacks, and activities that promote active play.

The policy actions above will facilitate improvements in child care settings that will help ensure young Texans eat healthy and grow up at a healthy weight.

¹ One study showed that children who became obese as early as age two were more likely to be obese as adults. Centers for Disease Control. *Progress on Childhood Obesity*. (Aug. 2013). Available at <http://www.cdc.gov/vitalsigns/childhoodobesity/>.

² Freedman DS, Zuguo M, Srinivasan SR, Berenson GS, Dietz WH. *Cardiovascular risk factors and excess adiposity among overweight children and adolescents: the Bogalusa Heart Study*. *Journal of Pediatrics* 150(1):12–17 (2007). Kushi LH, Byers T, Doyle C, Bandera EV, McCullough M, Gansler T, et al. *American Cancer Society guidelines on nutrition and*

physical activity for cancer prevention: reducing the risk of cancer with healthy food choices and physical activity. CA: A Cancer Journal for Clinicians 56:254–281 (2006).

³ Pooja Tandon, et. al. *The Relationships between physical activity and diet and young children’s cognitive development: A systemic review*. Preventive Medicine Reports. 3 (2016) 379-390.

⁴ LG Smithers, et al. *Dietary patterns at 6, 15 and 24 months of age are associated with IQ at 8 years of age*. Eur. J. Epidemiol. 27, 7 (2012) 525–535.

⁵ L. Feinstein, et al., *Dietary patterns related to attainment in school: the importance of early eating patterns*. J. Epidemiol. Community Health. 62, 8 (2008) 734–739. A. Nyaradi, et. al. *Diet in the early years of life influences cognitive outcomes at 10 years: a prospective cohort study*. Acta Paediatr. 102, 12 (2013) 1165–1173.

⁶ Cynthia Ogden. *Prevalence of Childhood and Adult Obesity in the United States, 2011-2012*. Journal of American Medical Association. (2014) 311(8):806-815. Available at <http://jama.jamanetwork.com/article.aspx?articleid=1832542>. This is the most recent nationwide study on obesity looking at children ages 2 to 17 and adults. Data on prevalence of obesity and overweight among all Texas children ages 2 to 5 is not publicly available at this time.

⁷ Among Texas children ages 2 to 5 from families participating in WIC, 17 percent were overweight and 15 percent were obese in 2011. Data only includes low-income families participating in the WIC program and does not represent all children. Last available data set is 2011 since CDC has discontinued the Pediatric Nutrition Surveillance System. Centers for Disease Control. *2011 Pediatric Nutrition Surveillance System*. Available at http://www.cdc.gov/pednss/pednss_tables/pdf/national_table6.pdf.

⁸ Centers for Disease Control. *2011 Pediatric Nutrition Surveillance System*. Available at http://www.cdc.gov/pednss/pednss_tables/pdf/national_table6.pdf.

⁹ Ibid.

¹⁰ State of Texas Children 2016: Race and Equity.” *Center for Public Policy Priorities*, Page 20, http://forabettertexas.org/images/KC_2016_SOTCReport_web.pdf.

¹¹ See Centers for Disease Control and Prevention. *Weight of the National, Early Care and Education Policy Review*. Available at http://www.cdc.gov/obesity/downloads/Early-Care-and-Education-Policy-Review-FINAL_web508.pdf. Kaphingst KM, Story M. Child care as an untapped setting for obesity prevention: state child care licensing regulations related to nutrition, physical activity, and media use for preschool-aged children in the United States. *Prev Chronic Dis*. 2009;6(1).

¹² In FY 2014, about 868,187 kids in Texas attended child care centers; 20,761 kids attended licensed child care homes; and 59,862 kids attended registered child care homes. There were an additional 131,169 school age kids attending before and after school programs. Department of Family and Protective Services. *2015 Annual Report and Databook: Child Day Care Licensing*. p. 76. Available at https://www.dfps.state.tx.us/About_DFPS/Data_Books_and_Annual_Reports/2015/pdf/6DCLAll.pdf.

¹³ CACFP meal pattern standards for infants and children was recently updated by USDA to ensure that meals and snacks served to kids in child care include a greater variety of vegetables and fruit, more whole grains, and less added sugar and saturated fat. The new standards are based on the Dietary Guidelines for Americans, science-based recommendations made by the National Academy of Medicine, cost and practical considerations, and stakeholder’s input.

¹⁴ In FY 2014, about 868,187 kids in Texas attended child care centers; 20,761 kids attended licensed child care homes; and 59,862 kids attended registered child care homes. An additional 131,169 school age kids attended before and after school programs. Department of Family and Protective Services. *2015 Annual Report and Databook: Child Day Care Licensing*. p. 76. Available at https://www.dfps.state.tx.us/About_DFPS/Data_Books_and_Annual_Reports/2015/pdf/6DCLAll.pdf.

¹⁵ In 2014, about 5,646 centers participated in CACFP, with average daily attendance of 341,284 kids; and about 5,515 licensed and registered child care homes participated in CACFP, with average daily attendance 42,496 kids. Food Research and Action Center. *CACFP Participation Trends 2014*. (Feb 2016). Available at <http://frac.org/pdf/cacfp-participation-trends-2014.pdf>.

¹⁶ For a summary of research showing how CACFP improves nutritional quality of foods kids receive in child care, see Food and Research Center. *CACFP Supports Good Nutrition in Quality Child Care*. Available at http://www.frac.org/pdf/CACFP_factsheet.pdf. Another study found that, compared to children who rely on food from home, children who received food from their CACFP child care program were 62% less likely to be in fair or poor health

and 64% less likely to have been hospitalized. These children were also more likely to be a healthy height and weight for their age. Children's Health Watch Policy Brief. *Child Care Feeding Programs Support Young Children's Healthy Development*. (January 2010). Available at http://www.childrenshealthwatch.org/upload/resource/cacfp_brief_jan10.pdf.

¹⁷ See Sander Korenman, et. al. *The Child and Adult Care Food Program and the Nutrition of Preschoolers*. *Early Child Res Q.* 2013 Spring;28(2):325-336. Available at <http://www.ncbi.nlm.nih.gov/pubmed/23687405>. Mary Kay Crepinsek, et. al. *Maternal Employment and Children's Nutrition: Volume I, Diet Quality and the Role of CACFP*. Economic Research Service. (June 2004). Available at <http://www.ers.usda.gov/media/1191571/efan04006-1fm.pdf>. KS Bruening, et. al. *Dietary intake and health outcomes among young children attending two urban day-care centers*. *Journal of American Dietary Association*. 1999 Dec;99(12):1529-35. Available at <http://www.ncbi.nlm.nih.gov/pubmed/10608946>.

¹⁸ Ibid.

¹⁹ Rachel Tolbert Kimbro and Elizabeth Rigby. *Federal Food Policy And Childhood Obesity: A Solution Or Part Of The Problem?* *Health Affairs* 29, no.3 (2010):411-418. See Sander Korenman, et. al. *The Child and Adult Care Food Program and the Nutrition of Preschoolers*. *Early Child Res Q.* 2013 Spring;28(2):325-336. Available at <http://www.ncbi.nlm.nih.gov/pubmed/23687405> (finding that Research CACFP may reduce the risk of overweight and underweight among participating children). Notably, a 2015 study found that CACFP reduced the risk of food insecurity for families. Controlling for other factors, a 4.9% reduction in household food insecurity was evident for the sample of children who attended CACFP-participating child care programs. Colleen Heflin, et. al. *The Child and Adult Care Food Program and Food Insecurity*. *Social Service Review*. (March 2015). Available at <http://foodsecurity.missouri.edu/wp-content/uploads/2015/04/cacfp-heflin-arteaga-gable-2015.pdf>.

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²² American Academy of Pediatrics, American Public Health Association, National Resource Center for Health and Safety in Child Care and Early Education. *Caring for Our Children: National Health and Safety Performance Standards; Guidelines for Early Care and Education Programs*. 3rd edition. (2011). Centers for Disease Control and Prevention. *Prevention Status Reports* (Mar. 2015). <http://www.cdc.gov/psr/national-summary/npao.html>.

²³ See CDC. *Prevention Status Reports* (Mar 2015).